

Activity Survey for Bats

**Location: Wragg Hall Farm, Biddulph Park Road,
Biddulph, ST8 7SJ**

Author: Helen Staton

September 2022

Notice to readers

This report has been prepared by Absolute Ecology with all reasonable skill, care and diligence, within the terms of the contract with the client. The actions of the surveyor on site, and during the production of the report were undertaken in accordance with the Code of Professional Conduct for the Chartered Institute of Ecology and Environmental Management (www.cieem.org.uk).

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The results of the survey and assessment work undertaken by Absolute Ecology are representative at the time of surveying.

Every endeavour has been made to identify the presence of protected species on site, where this falls within the agreed scope of works.

The flora and fauna detailed within this report are those noted during the field survey and from anecdotal evidence. It should not be viewed as a complete list of flora and fauna species that may frequent or exist on site at other times of the year.

Up to date standard methodologies have been used, which are accepted by Natural England and other statutory conservation bodies. No responsibility will be accepted where these methodologies fail to identify all species on-site.

Absolute Ecology cannot take responsibility where Government, national bodies or industry subsequently modify standards.

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Executive summary

Absolute Ecology was commissioned to undertake a bat survey for the bat roost potential at a site known as Wragg Hall Farm, Biddulph, Park Road, Biddulph, Stoke-on-Trent, ST8 7SJ. Ordnance survey grid reference; SJ90336046.

This report has been prepared with due consideration for various best-practice guidance and methodologies including those of the Chartered Institute of Ecology and Environmental Management (CIEEM (2012), BS 42020, and the Bat Conservation Trust Best Practice 3rd Edition 2016.

Onsite are a number of buildings including an occupied farmhouse and five derelict barns, of which one was subject to survey (B2). Proposals have been made to convert B2 into residential accommodation.

Another building onsite, referred to as B1, was surveyed in 2021 where the presence of a brown long-eared day roost (peak count one bat) and a common pipistrelle day roost (peak count one bat) was identified.

A building assessment of B2 was carried out 26th July 2022 by Helen Staton Bsc (Hons), ACIEEM, Natural England bat survey licence registration: 2015-14490-CLS-CLS. The assessment concluded B1 to be of **high** potential for supporting roosting bats with potential roosting features identified externally and internally, and scattered droppings recorded throughout.

Subsequent presence/absence surveys were undertaken on B1 as summarised below;

- Survey 1 – dusk emergence – 26/07/2022
- Survey 2 –dusk emergence – 09/08/2022
- Survey 3 – dawn re-entry – 01/09/2022

The results of the bat activity surveys, which were conducted during the optimum survey period, has **confirmed the presence of bats within B2.**

Two species of bats were recorded roosting within the building: common pipistrelle (peak count of two bats) and brown long-eared (peak count of two bats).

Application for an EPS licence from Natural England shall be required for the proposed renovation of the building into residential use, which should provide a comprehensive mitigation strategy for the loss of a summer day roost for brown long-eared bats, and loss of a summer day roost for common pipistrelle bats. A mitigation strategy is provided in section 6.

During the surveys, inactive Swallow (*Hirundo rustica*) nests were recorded within the building. A nesting bird check should be carried out prior to the start of any works - if scheduled during the nesting season (March-August). If an active nest is recorded, works will have to cease within that area until the young have fledged.

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2.0 Introduction

Background

- 2.1 Absolute Ecology was commissioned to undertake a bat survey for the bat roost potential at a site known as; Wragg Hall Farm, Biddulph, Park Road, Biddulph, Stoke-on-Trent, ST8 7SJ. Ordnance survey grid reference; SJ90336046.
- 2.2 The initial building assessment was undertaken 26th July 2022 by Helen Staton Bsc (Hons), ACIEEM, Natural England bat survey licence registration: 2015-14490-CLS-CLS.
- 2.3 The scope of this appraisal has been determined in line with the proportional approach to ecological survey, assessment and subsequent recommendations for avoidance and mitigation of impacts, which is encouraged in the emerging 'BS 42020: Biodiversity – Code of practice for planning and development'. This report has been prepared with due consideration for various best-practice guidance and methodologies including those of the Chartered Institute of Ecology and Environmental Management (CIEEM (2012)) and the emerging BS 42020, and the Bat conservation Trust Best Practice 2016.
- 2.4 The objective of this report is to provide the client with information on any known or potential protected or rare species that may be using the site, and to outline recommendations on how to proceed with the works in a legal and ecologically sensitive manner.
- 2.5 Unless the client indicates to the contrary, information on the species found to be present on the site will be passed to the county biological records centre to update records held for the area.

Proposed Works

- 2.6 Proposals have been made to convert the redundant barn (B2) into a residential dwelling.

Site Description

- 2.7 The site is located within a predominantly rural setting, approx. 2km northeast of the town of Biddulph. The site is immediately bounded by agricultural land with scattered residential properties/farms in the area. Within the wider landscape are features beneficial for foraging/commuting bats including water bodies, water courses, an orchard, mature hedgerows and woodland.

Aims of the Survey

Bats

- 2.8 The aims of the Preliminary Roost Assessment and presence/absence activity surveys is to provide an ecological evaluation of bats within the proposed application area, to include the following;
- Probability of bats and their roost sites being present at the proposed redevelopment site.
 - To assess the roost status.
 - To assess suitable food resources and habitat requirements.
 - If a roost site is found, to provide an impact assessment.
- 2.9 A bat roost is interpreted as 'any structure or place, which any wild bat uses for shelter or protection'. Bats tend to show a high fidelity to roosts. Subsequently, legal opinion regards a roost to be protected whether or not the bats are present at the time. There are many types of roost used by temperate bats during their annual cycle. Any structures found having evidence of bats will be further evaluated to assess which of the following roost categories may be present onsite (if any):

Table 1: Bat Roost Types and Definitions

Type	Definition
Maternity / Nursery Roost	Used by breeding bats, where pups are born and raised to independence (Anecdotal evidence may support this prospect despite sub-optimal survey period).
Hibernation Roost	Where bats may be found during the winter. (This is assessed within the context of this report).
Day Roost	Used by males and/or non-breeding females (Seasonal limitations prevent robust analysis of this).
Night Roost	Where bats rest between feeding bouts during the night but are rarely present during the day.
Feeding Roost	Where bats temporarily utilize feeding perches and stations to eat an item of prey.
Transitional/occasional roost	Used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.
Swarming Site	Where large numbers of males and females gather during late summer to autumn. Appear to be important mating sites.
Mating sites	Where mating takes place from late summer and can continue through winter.
Satellite roost	An alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.

- 2.10 Should bats be present onsite, then a European Protected Species (EPS) development license issued by Natural England (NE) may be required prior to any works taking place. If required, further presence/absence survey should be undertaken and a mitigation strategy be implemented with Natural England and the Local Planning Authority. Should no further surveying effort be considered, then the PEA report will include full justification and evaluation.

Birds

- 2.11 In addition, consideration will be given to the presence of breeding birds, to provide an ecological evaluation within the proposed application area, to include the following;
- Establish if birds are using the site.
 - Locate nest sites, if present.
 - Assess suitable food resources and habitat requirements.
 - Provide an impact assessment, if nests are found.
- 2.12 Particular consideration will also be given to the presence of barn owl (*Tyto alba*) within rural locations, to include the following;
- Establish presence onsite.
 - Establish potential nest sites (PNS).
 - Locate any active roost sites (ARS).
 - Locate any temporary roost sites (TRS)
 - Assess potential feeding and dispersal habitats (PFH)
 - Provide an impact assessment, should barn owl(s) be present
- 2.13 Assessment also considers potential effects on valued ecological receptors (VERs) and zones of influence (Zoi) during pre and post development, both onsite and off- site. The term Zone of Influence is used to describe the geographic extent of potential impacts of a proposed development. Should a likely significance of negative impacts be identified, further surveys, mitigation and enhancement measures will then be determined accordingly; to prevent, offset or reduce the degree of impact that may occur should development commence.

3.0 Methodology

Desk Study

- 3.1 Absolute Ecology LLP undertook a 2km data search, assisted by Staffordshire Ecological Record (SER).

Building/Tree Inspection

- 3.2 All bat species resident in the UK have been recorded using trees, buildings and built structures, e.g. bridges, at some time during the year (Bat Conservation Trust, 3rd edition 2016).
- 3.3 Building inspections adhere to guidance within the Bat Mitigation Guidelines (Mitchell Jones 2004) and within Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins 2016). Surveys involve external and internal examinations of relevant areas.
- 3.4 Equipment used to support the assessment include binoculars and a high-powered torch, with an endoscope on hand for any accessible crevices. Throughout the building inspections, evidence of use by bats (including bat presence, droppings, feeding remains, urine stains and grease marks) was searched for, in addition to suitable potential access and roosting points. These can include gaps beneath ridge tiles, lifted/raised roof tiles, missing tiles, missing/damaged doors and windows, gaps behind fascia boards and in soffit boxes, gaps beneath lead flashing and crevices in the brickwork. Internally, loft spaces (where safe to do so) are also inspected for evidence of bat use, as well as bats themselves.
- 3.5 Any trees within the survey area will also be assessed for any features that may present suitable opportunities to roosting bats. Such features can include: lifted bark, knot holes, woodpecker holes, rot holes, splits, cavities, bat boxes and densely-plated ivy growth.
- 3.6 Any onsite buildings/trees will be assigned a value for its bat roosting potential, as described in Table 2 (adapted from Collins, 2016).

Table 2: Buildings and Trees Assessment Criteria

Suitability	Description	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger number of bats (i.e. unlikely to be suitable for maternity of hibernation). A tree of sufficient size and age to contain potential roosting features (PRF's) but with none seen from the ground of features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as a happy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.

Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees. Scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, treelined watercourses and grazed parkland. Site is close to known roosts.

- 3.7 The classification of the building and trees corresponds to the level of further survey effort required i.e. the number of recommended emergence/re-entry surveys for bats, in accordance with best practice guidance (Collins 2016), as shown in Table 3;

Table 3: Minimum number of survey visits to give confidence in a negative result, and timings

Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry (structures).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey.	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn.
No further survey required (trees).	May to September with at least one of the surveys between May and August.	May to September with at least one of the surveys between May and August.
May to August.		

Activity Surveys

- 3.8 Bat ultrasound data is gathered using a number of heterodyne (Batbox Duet and SSF Bat2) and real-time recording devices (Wildlife Acoustics Echo Meter Touch). Real-time recordings were subsequently analysed using Bat Explorer software. Surveyors are positioned around the building/tree in order to cover all vantage points/elevations.
- 3.9 All surveys were carried out during optimal weather conditions and period for bat activity – sunset temperature 10°C or above, no rain or strong wind. Following best practice guidance; Dusk emergence surveys commenced 15minutes before sunset until 1.5-2hours after sunset. Dawn re-entry surveys commenced 1.5hours before sunrise until 15minutes after sunrise.

Surveyor Information

Surveyor 1

- 3.10 Helen Staton – BSc (Hons) ACIEEM, Natural England Bat Survey Class Licence Registration Number: 2015-14490-CLS-CLS. Helen has been working for ecological consultancies for over ten years and has held a Level 1 bat licence for 9 years. Helen is an experienced bat surveyor with competency in activity surveys, dawn and dusk bat roost assessments, daytime surveys for bat field signs, assessments of trees as potential bat roosts and the production of reports providing advice on best practice, mitigation and compensation works relating to bats as may be required.

Surveyor 2

- 3.11 Carrie Alcock - BSc (Hons). Carrie has been working as an Assistant Ecologist for Absolute Ecology since June 2017. Carrie is competent with activity surveys, dawn and dusk, bat roost assessments, daytime surveys for bat field signs, assessments of trees as potential bat roosts.

Surveyor 3

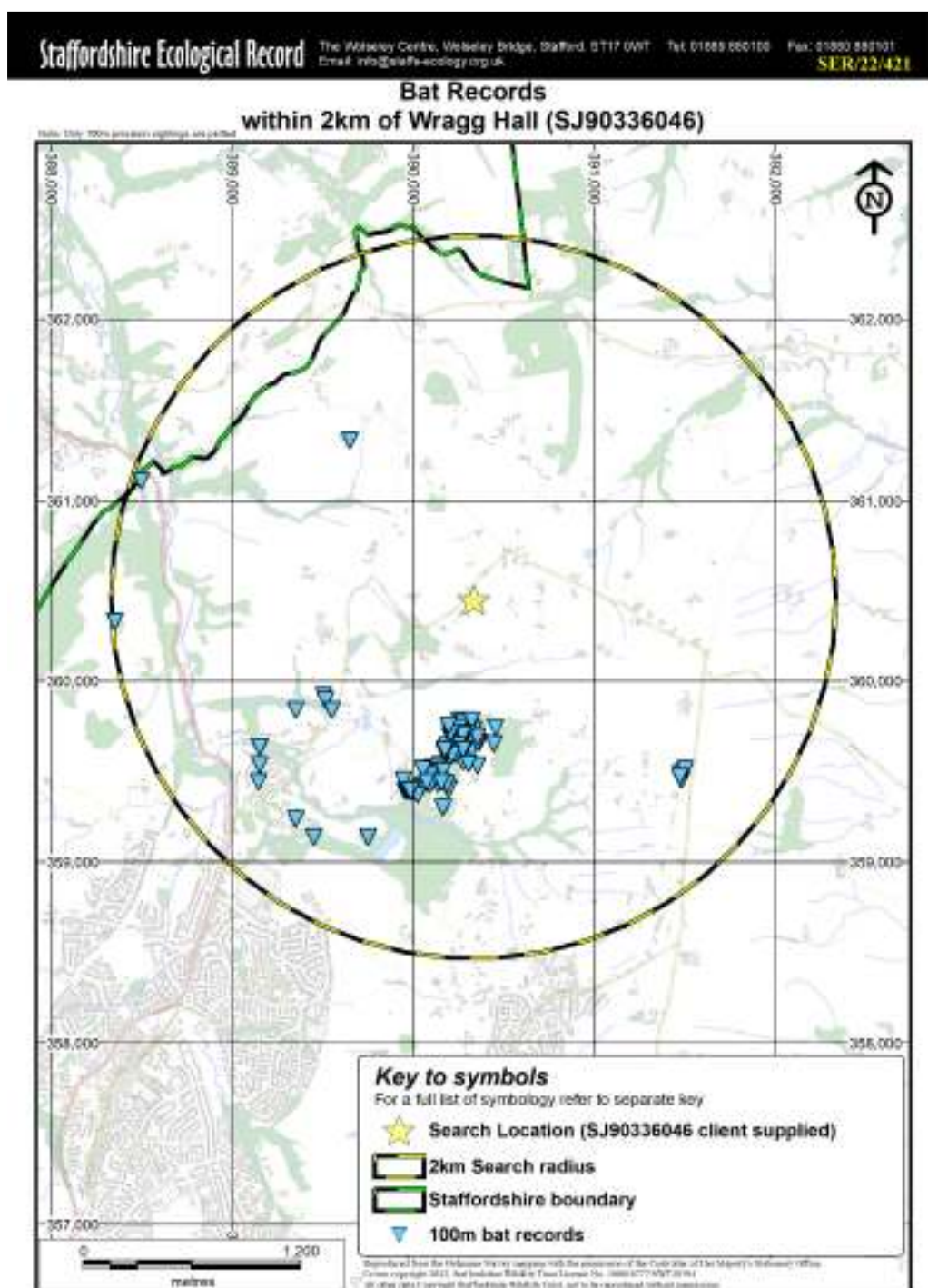
- 3.12 Gareth Staton - Phd. Gareth is working as an Assistant Ecologist for Absolute Ecology and has undergone training to allow him to assist on dusk and dawn activity surveys.

4.0 Results

Desk Study

- 4.1 SER returned 500 bat records within 2km of the site, comprising of the following species; common pipistrelle (*Pipistrellus pipistrellus*), Soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), Noctule (*Nyctalus noctule*), whiskered/brandt's (*Myotis mystacinus/brandtii*), Daubenton's (*Myotis daubentonii*).

Figure 1: Desk Study Map



Building Inspection

- 4.2 B2 was subject to an internal and external inspection on 26th July 2022 by Helen Staton, a bat licenced ecologist.

B2 External Inspection

- 4.3 B2 comprises a L-shaped redundant agricultural building, solid stone and brick in construction with a pitched clay tiled roof. On the south-eastern elevation is an open style barn with steel supports and a corrugated roof.
- 4.4 The doors and windows on the main part of the building are all missing/damaged creating easy access for both bats and birds. Across the roof slopes, several tiles are missing/damaged including ridge tiles which create Potential Roosting Features (PRF's) for bats and/or additional access points. Some of the ridge tiles are also vented.
- 4.5 The brick and stonework are in a good overall condition with no obvious crack's crevices noted, bar on the south-west elevation where a window has been blocked up and crevices were noted along the top, creating a PRF.

B2 Internal Inspection

- 4.6 Internally the main building is divided over two floors and is used for storage. The first floor is accessed via a staircase on the buildings northern end. The roof is in a king post design and is lined with a bitumen type felt. Several areas of damage noted within the felt. The presence of felt can obstruct evidence as should bats be roosting between the felt and the tiles, droppings/staining would not fall to the floor.
- 4.7 Due to the missing doorways/windows, and the presence of skylights on the northern section, the interior of the building well-lit which may deter some species of roosting bats. The first floor is open plan with access throughout although due to water damage/wood worm/rotten timbers a full inspection of the first floor was not undertaken due to health and safety concerns. Within the areas visible/accessible, scattered bat droppings were noted including fresh droppings.
- 4.8 The ground floor rooms are all segregated although due to missing doorways/windows, bats can access all areas freely.
- 4.9 Overall due to the ease of access into the building for bats, the number of suitable roosting features present internally and externally, and due to the discovery of scattered droppings, the building was assessed to be of **high roosting potential**.

Figure 2: Building Location Plan



Activity Surveys

4.10 Absolute Ecology LLP using information obtained by during previous site inspections, undertook subsequent bat activity surveys to confirm the presence/absence of bats within the building. Three surveyors were present on each visit.

Timings and Abiotic Variables

Table 4: Timings and Abiotic variables

Abiotic variables during survey 1: Dusk emergence			
Date: 26/07/2022			
Sunset: 21:14			
Temp Start	13 °C	Cloud Cover Start	10%
Temp Finish	12°C	Cloud Cover Finish	10%

Wind Speed Average	<6mph	Precipitation	Nil
Abiotic variables during survey 2: Dusk emergence			
Date: 09/08/2022			
Sunset: 20:49			
Temp Start	21 °C	Cloud Cover Start	10%
Temp Finish	20°C	Cloud Cover Finish	10%
Wind Speed Average	<5 mph	Precipitation	Nil
Abiotic variables during survey 3: Dawn re-entry			
Date: 01/09/2022			
Sunset: 06:18			
Temp Start	13 °C	Cloud Cover Start	50%
Temp Finish	13°C	Cloud Cover Finish	80%
Wind Speed Average	<7 mph	Precipitation	Nil

Results summary (full results tables shown in Appendix)

Table 5: Activity Results

Survey number	Building reference	Summary
1 Dusk	B1	1 x common pipistrelle and 2 x brown long-eared bats emerged from B2. Moderate bat activity observed from common pipistrelle, brown long-eared, Noctule and a <i>Myotis</i> sp.
2 Dusk	B1	Estimated 2 x common pipistrelle and 2 x brown long-eared emerged from B2. Results are estimated due to the bats flying in and out of the building and using the first floor for foraging. Moderate bat activity observed from Noctule, common pipistrelle and brown long-eared.
3 Dawn	B1	2 x brown long-eared bats re-entered B2 Moderate bat activity observed from common pipistrelle, brown long-eared and <i>Myotis</i> sp.
Roost Status Summer day roost for common pipistrelle (peak count 2) and brown long-eared (peak count 2). Both species roosting internally – exact locations unknown due to surveyor access issues to the first floor.		

Figure 3: Building plan and surveyor locations (indicated by the yellow circles).



Photographic plate 1: B2 north-west elevation



Photographic plate 2: Internal view of the first floor (southern section)



Photographic plate 3: Internal view of the first floor (northern section)



Photographic plate 4: Internal doorway which connects first floor sections



5.0 Assessment

Constraints

Constraints on Survey Information

- 5.1 All activity surveys were carried out during July - September 2022. This period is considered as being an optimal survey period in order to evaluate the presence or absence of bats.
- 5.2 The first-floor areas were not fully accessed by surveyors due to the condition of the floors (water damage, wood worm etc.). Therefore it has not been possible to establish the exact locations of the bat roosts, which are thought to be internally located. Enough information was however obtained to confirm the presence of two-day roosts, for a low number of bat species – common pipistrelle and brown long-eared.

Constraints on Equipment Used

- 5.3 No constraints were present with regards to the equipment used during the scoping effort (i.e. bat detectors, endoscope, ladders and high-powered binoculars).

Potential Impacts of Development

Roosts

- 5.4 Low numbers of common pipistrelle and brown long-eared bats were recorded emerging and re-entering during the activity surveys.
- 5.5 It is considered that all effort has been made to establish what negative impacts will occur to roosting bats, and these have been identified below.

Short-term impacts: Disturbance Annexe [High Negative]

- 5.6 Without mitigation including sensitive timing of works, the short-term impact to bats would be the potential for individuals / group(s) of bats to be disturbed, killed or injured during construction work throughout the year.

Long-term impacts: Roost modification [High Negative]

- 5.7 Potential long-term loss of summer roost for brown long-eared and common pipistrelle.

Long-term impacts: Roost loss [High Negative]

- 5.8 The long-term impact of loss of roosts upon bat populations is poorly understood and difficult to study. There is variation of impact depending on species of bat, whereby some species are more sensitive to disturbance than other species. Thus the impact of roost loss for the local populations of brown long-eared bats is deemed more severe should the development continue without mitigation. All onsite species are considered common and widespread, although have declined in Britain due to changing land use, including the conversion of barns and other buildings, which have resulted in the loss of suitable feeding and roosting habitats.

Long-term impacts: Fragmentation and isolation annexe [Low potential]

- 5.9 No impacts on adjacent habitats. All trees onsite are to be retained, maintaining linear features used by commuting and foraging bats. No additional land intake associated with the development.

6.0 Recommendations and Mitigation

Bats

Further Surveys

- 6.1 It is considered that a reasonable amount of survey effort has been applied, thus no further surveys are required. However, further surveys would be considered necessary if no redevelopment has commenced within two years of this report.

Mitigation Measures

- 6.2 Application for an EPS licence from Natural England shall be required, which should provide a comprehensive mitigation strategy for potential loss of;
- Brown long-eared summer day roost - x 2 bats
- 6.3 Application for an EPS licence from Natural England shall be required, which should provide a comprehensive mitigation strategy for potential loss of;
- Common pipistrelle summer day roost x 2 bats

Proposals and licensable works

- 6.4 B2 will be converted into residential accommodation including the re-roofing of the property.
- 6.5 A Natural England European Protected Species License will be required which will pertain to the loss of a summer day roost for a brown long-eared bats and common pipistrelle bats.

Recommendations

Mitigation Strategy – B2 Wragg Hall Farm

- 6.6 The following mitigation strategy has been designed to maintain the population status of all species onsite.
- 6.7 **Time avoidance measures** – re-roofing and first floor internal building works to be carried out between October-March when the bats are least likely to be present, and under the supervision of a qualified bat ecologist. Should any bats be inadvertently discovered during this, or any other works then all work must cease immediately until further consultation is made. If necessary, the use of standard capture and exclusion methods may be deployed to prevent harm to any bats found, which may then be relocated to a suitable safe area (receptor bat box) should natural dispersal not occur.
- 6.8 **Retention of roost** – it is envisaged that both roosts will be lost through the re-roofing of the building and internal renovation.
- 6.9 **Replacement of roosts** – to replace the brown long-eared bat roost, 2 x Vincent Pro bat boxes will be installed externally. One on the north-west elevation and one on the south-east elevation. The box features three vertical chambers of different sizes, providing ideal roosting space for a variety of species including brown long-eared. <https://www.nhbs.com/vincent-pro-bat-box>

- 6.10 To replace the common pipistrelle roost, 2 x Beaumaris Woodstone Bat Boxes will be installed externally. One on the north-west elevation and one on the south-west elevation. The Beaumaris box has a single narrow cavity which makes it suitable for crevice roosting bats such as the common pipistrelle. <https://www.nhbs.com/beaumaris-woodstone-bat-box>
- 6.11 A hibernation bat box will be fitted within to an onsite tree to act as a receptor site during the supervision works, which will also remain onsite post construction. The bat box will be - Large Multi-Chamber Bat Box <https://www.wildcare.co.uk/large-multi-chamber-woodstone-bat-box.html>

Birds

- 6.12 During the surveys, inactive Swallow nests were recorded within the building. A nesting bird check should be carried out prior to the start of any works - if scheduled during the nesting season (March-August). If an active nest is recorded, works will have to cease within that area until the young have fledged.

7.0 Summary

Bats

- 7.1 A small number of common pipistrelle and brown long-eared bats were detected re-entering during the activity surveys. Therefore, it is considered that all effort has been made to establish what negative impacts will occur to roosting bats, and these have been identified in section 4.
- 7.2 Application for an EPS licence from Natural England shall be required for the building's conversion, which should provide a comprehensive mitigation strategy for the loss of a brown long-eared summer day roost and loss of a common pipistrelle summer day roost.

Nesting birds

- 7.3 During the surveys, inactive Swallow nests were recorded within the building. A nesting bird check should be carried out prior to the start of any works - if scheduled during the nesting season (March-August). If an active nest is recorded, works will have to cease within that area until the young have fledged.

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Websites used:

Protected Sites: www.magic.gov.uk

Protected Species: <http://data.nbn.org.uk/>

Rotherham Biodiversity Action Plan:

http://www.rotherham.gov.uk/info/1009/wildlife/946/biodiversity_action_plan/1

UKBAP: <http://jncc.defra.gov.uk/page-5155>

www.rspb.org.uk

www.streetmap.co.uk

www.maps.google.co.uk

www.bing.com/maps

Web addresses for access to full UK legislation and policy text:

Conservation (Natural Habitats &c.) Regulations 1994:

http://www.opsi.gov.uk/si/si1994/uksi_19942716_en_1

Conservation (Natural Habitats &c.) (Amendment) Regulations 2007:

http://www.opsi.gov.uk/si/si2007/uksi_20071843_en_1

Conservation (Natural Habitats &c.) (Amendment) Regulations 2009:
http://www.legislation.gov.uk/uksi/2009/6/pdfs/uksi_20090006_en.pdf

Habitats Directive:
http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

Wildlife and Countryside Act 1981:
<http://www.legislation.gov.uk/ukpga/1981/69>

Countryside and Rights of Way Act 2000:
<http://www.legislation.gov.uk/ukpga/2000/37/contents>

Protection of Badgers Act 1992:
http://www.opsi.gov.uk/ACTS/acts1992/ukpga_19920051_en_1

Natural Environment and Rural Communities Act 2006:
<http://www.legislation.gov.uk/ukpga/2006/16/contents>

National Planning Policy Framework 2012:
<http://www.communities.gov.uk/publications/planningandbuilding/nppf>

9.0 Plans

Appendix 1: Full Activity Survey Results

Survey 1: 26/07/2022 – Dusk		
Time	Species (common name)	Observed behaviour
21:33	Common pipistrelle	Heard not seen – faint call
21:40	Common pipistrelle	Emerged southwest elevation, crack in stonework. Foraged under open barn until 21:50
21:53	Noctule	Heard not seen
21:55	Brown long-eared	Emerged open first floor window northern elevation
21:56	Brown long-eared	Emerged first floor hay door south east elevation and foraged under open barn
21:59	Brown long-eared	X 2 bats foraging under open barn
22:01	Common pipistrelle	Foraging around building - west elevation
22:07	Brown long-eared	Foraging around west side of building
22:08	Brown long-eared	Foraging under open barn
22:10	Myotis sp.	Foraging around adjacent building (B1 to the west)
22:11	Common pipistrelle and brown long-eared	Approx. 3 x bats foraging under open barn until 22:40
22:13	Brown long-eared	Foraging west side of building
22:19	Brown long-eared	Foraging under adjacent open barn (north-west side)
22:26	Common pipistrelle	Commuting north to south
<u>Survey 1 summary</u> 1 x common pipistrelle and 2 x brown long-eared bats emerged from B2.		

Survey 2: 09/08/2022 – Dusk		
Time	Species (common name)	Observed behaviour
21:04	Common pipistrelle	Flew onto site from a southerly direction and foraged under the open barn to the west of B2
21:13	Common pipistrelle	Foraging around western side of B2
21:15	Common pipistrelle	Emerged open hay door on western elevation
21:16	Common pipistrelle	Emerged open hay door on western elevation
21:17	Common pipistrelle	X 2 bats foraging and chasing each other around south and west side of B2
21:22	Brown long-eared	Flew onto site from a southerly direction and foraged under open barn on the east side of B2
21:22	Brown long-eared	Flew into B2 via open hay door east elevation and did not re-emerge

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21:25	Common pipistrelle	Flew into B2 (east elevations) and foraged around first floor
21:27	Common pipistrelle	Flew into B2 via open hay door east elevation and existed open hay door west elevation
21:30	Common pipistrelle	Flew out of open hay door west elevation
21:37	Common pipistrelle	Flew onsite from a southerly direction and briefly foraged under open barn west side of B2
21:40	Common pipistrelle	Foraging west side of B2
21:43	Common pipistrelle	Foraging under open barn west side of B2
21:49	Brown long-eared	X 2 bats emerged from eastern elevation hay door and foraged under open barn until the end of the survey
21:49	Common pipistrelle	Foraging western side of B2 and under open barn
21:50	Brown long-eared	Emerged from open hay door on east elevation and foraged under the open barn until the end of the survey
21:58	Common pipistrelle	Commuting over site heading in a southerly direction
22:02	Common pipistrelle	Heard not seen
<u>Survey 2 summary</u> Estimated 2 x common pipistrelle and 2 x brown long-eared emerged from B2. Results are estimated due to the bats flying in and out of the building and using the first floor for foraging.		

Survey 3: 01/09/2022 – Dawn		
Time	Species (common name)	Observed behaviour
05:03	Myotis sp.	Foraging around site and building
05:05	Brown long-eared	Foraging around site and building, flew onto site from a southerly direction
05:09	Brown long-eared	Re-entry via open hay door on west elevation
05:14	Common pipistrelle	Flew over building
05:16	Common pipistrelle	Foraging around building and site
05:18	Brown long-eared	Foraging around west elevation
05:19	Brown long-eared	Re-entry via open hay door on east elevation
05:25	Common pipistrelle	Commuting over building – flew off in a easterly direction
05:27	Common pipistrelle	Foraging over B2 and around west elevation
05:28	Brown long-eared	Foraging around south west elevation before flying offsite
05:41	Common pipistrelle	Commuting over site in a westerly direction
05:42	Common pipistrelle	Foraging under open barn on the north west side of the building until 05:46. Flew offsite
05:49	Common pipistrelle	Foraging under open barn on the north west side of the building until 06:02. Flew offsite in a north westerly direction.

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Survey 2 summary

2 x brown long-eared re-entered B2

Appendix 2: Legislation

Legislation and Policy Guidance

Unlike many smaller mammals, bats have low fecundity with a long and complex life cycle, which is played out over a large spatial landscape. Bats show a strong fidelity to different types of roosts throughout their annual cycle i.e. hibernacula, maternity, bachelor, satellite roosts and feeding perches. Linear features within the landscape such as hedgerows and tree lines are often used by bats for commuting, predator avoidance and foraging. Bats are highly social animals and loss of a single habitat alone can have a serious impact on populations. The status of many bat populations is tentative, being based on relatively few records and are highly susceptible to habitat loss and fragmentation. As such bats are given protected consideration within the following legislation and policy guidelines:

Policy guidelines

PAS 2010	The published 'PAS 2010' 'Planning to halt the loss of biodiversity' which is the government's new policy aimed at all authorities and developers involved in the planning process in the UK to halt biodiversity decline by 2010 and deliver net biodiversity gains as part of the green infrastructure provisions.
National Planning Policy Framework, Section 11:	The recently published framework in 2012, replaces the previous Planning Policy Statement 9. Section 11: Conserving and enhancing the natural environment, reaffirms the Government's commitment to maintaining green belt protections and preventing urban sprawl, retains the protection of designated sites and preserves wildlife, aims to improve the quality of the natural environment, and halt declines in species and habitats, protects and enhances biodiversity and promotes wildlife corridors.
Article 10 of the EC Habitats Directive:	The published Article requires government to develop features such as 'stepping stones' on the landscape, such as clusters of ponds, tracts of rough grassland or scrubland and vegetated railway line embankments.
Wildlife and Countryside Act 1981:	All species of bat are fully protected under the Wildlife and Countryside Act 1981, the European Conservation (Natural Habitats etc.) Regulations 1994, and the Countryside and Rights of Way Act 2000. This legislation makes it illegal to possess or control any live or dead specimens, to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a bat while it is occupying a structure or place which it uses for that purpose.
Conservation of Habitats and Species Regulations (2010)	The Conservation of Habitats and Species Regulations 2010 consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994, in respect of England and Wales. It is an offence to possess, sell or offer, or transport for sale any European species of bat or any part derived from such a species. These Regulations also remove the 'incidental result defence'. In other words, it is no longer a defence to show that the killing, capture or disturbance of a species covered by the Regulations or the destruction or damage of their breeding sites or resting places was the incidental and unavoidable result of a lawful activity. Natural England can grant European Protected Species (EPS) licences in respect of development to permit activities that would otherwise be unlawful.

Natural Environment and Rural Communities Act (2006)	Under Section 40 of the Natural Environment and Rural Communities Act (2006), public bodies, including Local and Regional Planning Authorities, have a duty to 'have regard' to the conservation of biodiversity in England when carrying out their normal functions, which includes consideration of planning applications. In compliance with Section 41 of the Act, the Secretary of State has published a list of species considered to be of principal importance for conserving biodiversity in England. This is known as The England Biodiversity List, all of which make up the UK BAP Priority Species. Regional Planning Bodies and Local Planning Authorities will use it to identify the species that should be afforded priority to maintain, restore and enhance species and habitats.
Bird legislation	Most resident nesting birds are protected under the Wildlife and Countryside Act 1981, which protects birds, nests, eggs and nestling's. Some rarer species, such as barn owls, are afforded extra protection.

Please note: If bat species are present at the site, the purpose of this report will only summarize the potential requirements for a bat mitigation package or project. A separate mitigation report or project will include the necessary compensation measures to maintain the conservation status of a European Protected Species.